IN THE SPECIFICATION

Please amend the paragraphs of the specification as follows:

On page 2, please replace paragraph [0006] with the following paragraph:

At the receiver unit, a rake receiver is often used to recover the transmitted pilot, signaling, and traffic data from all transmitter units that have established communication with the receiver unit. A signal transmitted from a particular transmitter unit may be received at the receiver unit via multiple signal paths, and each received signal instance (or multipath) of sufficient strength may be individually demodulated by the rake receiver. Each such multipath is processed in a manner complementary to that performed at the transmitter unit to recover the data and pilot received via this multipath. The recovered pilot has an amplitude and phase determined by, and indicative of, the channel response for the multipath. The pilot is typically used for coherent demodulation of various types of data transmitted along with the pilot, which are similarly distorted by the channel response. For each transmitter unit, the pilots for a number of multipaths [[for]] <u>of</u> the transmitter unit are also used to combine demodulated symbols derived from these multipaths to obtain combined symbols having improved quality.

On page 3, please replace paragraph [0008] with the following paragraph:

~~There is therefore~~ <u>Therefore, there is</u> a need for techniques to cancel interference due to pilots in a wireless (e.g., CDMA) communication system.

On page 3, please replace paragraph [0011] with the following paragraph:

The pilot interference due to each interfering signal instance may be estimated by (1) ~~despread~~ <u>despreading</u> the data samples with a spreading sequence for the signal instance, (2) channelizing the despread samples with a pilot channelization code to provide pilot symbols, (3) filtering the pilot symbols to provide an estimated channel response of the signal instance, and (4) multiplying the spreading sequence for the signal instance with the estimated channel response to provide the estimated pilot interference. The data demodulation for each desired multipath may be performed by (1) despreading the pilot-canceled data samples with the

spreading sequence for the signal instance, (2) channelizing the despread samples with a data channelization code to provide data symbols, and (3) demodulating the data symbols to provide the demodulated data for the signal instance. For improved performance, the pilot estimation and cancellation may be performed at a sample rate that is higher than the PN chip rate.

On page 6, please replace paragraph [0026] with the following paragraph:

FIG. 2 is a simplified block diagram of an embodiment of base station 104 and terminal 106. On the reverse link, at terminal 106, a transmit (TX) data processor 214 receives various types of “traffic” such as user-specific data from a data source 212, messages, and so on. TX data processor 214 then formats and codes the different types of traffic based on one or more coding schemes to provide coded data. Each coding scheme may include any combination of cyclic redundancy check (CRC), convolutional, Turbo, block, and other coding, or no coding at all. Interleaving is commonly applied when error correcting codes are used to combat fading. Other coding ~~scheme~~ schemes may include automatic repeat request (ARQ), hybrid ARQ, and incremental redundancy repeat. Typically, different types of traffic are coded using different coding schemes. A modulator (MOD) 216 then receives pilot data and the coded data from TX data processor 214, and further processes the received data to generate modulated data.

On page 12, please replace paragraph [0057] with the following paragraph:

In a second pilot interference cancellation scheme that is also based on the first demodulator design, the channel response of a particular multipath is estimated based on a segment of data samples, and the estimated channel response is then used to derive an estimate of the pilot interference due to this multipath for the next segment. This scheme may be used to reduce (or possibly eliminate) [[the]] additional processing delays in the data demodulation resulting from the pilot interference estimation and cancellation. However, since the link conditions may continually change over time, the time delay between the current and next segments should be kept sufficiently short such that the channel response estimate for the current segment is still accurate in the next segment. For clarity, the pilot interference estimation and cancellation are described below for the second scheme.

On page 15, please replace paragraph [0065] with the following paragraph:

For [[some]] other receiver design in which the received signal is not sufficiently oversampled, then interpolation may alternatively or additionally be performed along with decimation to derive new samples at the proper timing phase, as is known in the art.

On page 21, please replace paragraph [0084] with the following paragraph:

In FIG. 6A, for the *n*-th symbol period for the *m*-th multipath with a fractional time offset of $t_{frac,m} = 5$, resampler 522 receives data samples 5 through 516 from the sample buffer and provides to despreader 524 data samples 5, 13, [[20]] 21, and so on, and 509, which are represented by the shaded boxes. Correspondingly, despreader 524 receives the spreading sequence, $S_m^*(k)$, with a phase corresponding to the same time offset of t_m, and despreads the decimated data samples with the spreading sequence. A pilot estimate, $P_m(k)$, is then derived based on the despread samples for this segment, as described above.

On page 22, please replace paragraph [0086] with the following paragraph:

For the data demodulation of the *m*-th multipath for the *n*-th symbol period, the same segment of interference samples 5 through 516 are provided from accumulator 538 to resampler 540. Resampler 540 then provides to summer 542 interference samples 5, 13, [[20]] 21, and so on, and 509 (which are also shown by the shaded boxes), corresponding to the same-indexed data samples provided by resampler 522. The data demodulation of the pilot-canceled data samples is then performed as described above. Each multipath may be processed in similar manner. However, since each multipath may be associated with a different time offset, different decimated data and interference samples may be operated on.

On page 29, please replace paragraph [00113] with the following paragraph:

The demodulator and other processing units that may be used to implement various aspects and embodiments of the invention may be implemented in hardware, software, firmware, or a combination thereof. For a hardware design, the demodulator (including the data demodulation unit and the elements used for pilot interference estimation and cancellation such

as the pilot estimator and the pilot interference estimator), and other processing units may be implemented within one or more application specific integrated circuits ~~(ASIC)~~ (ASICs), digital signal processors (DSPs), digital signal processing devices (DSPDs), field programmable gate arrays (FPGAs), processors, microprocessors, controllers, microcontrollers, programmable logic devices ~~(PLD)~~ (PLDs), other electronic units, or any combination thereof.

On page 29, please replace paragraph [00114] with the following paragraph:

For a software implementation, the elements used for pilot interference estimation and cancellation and data demodulation may be implemented with modules (e.g., procedures, functions, and so on) that perform the functions described herein. The software codes may be stored in a memory unit (e.g., memory 262 in FIG. 2) and executed by a processor (e.g., controller 260). The memory unit may be implemented within the processor or external to the processor, in which case it can be communicatively coupled [[to]] with the processor via various means as it is known in the art.